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TRANSMITTAL		Application Number	•••	09/975,518
FORM		Filing Date		October 11, 2001
(to be used for all correspondence after initial filing)		First Named Invent	tor	Samir Kapoor
JUL 1 1 2000	6	Group Art Unit		2661 RECEIVE
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Affidavits/declaration(s)	Petition			ppeal Notice, Brief, Reply Brief)
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Document(s)	CD Number of	CD(s)		
Response to Missing Parts/ Incomplete Application				
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Signature Signature	M Bar	ich	-	
Date July 8, 2002		-1		
	CERTIFICATI	E OF MAILING		
I hereby certify that this correspondent postage as first class mail in an envelo date: July 8, 2002	ce is being deposited pe addressed to: Co	d with the United Sta ommissioner for Pate	ites Posi ents, Wa	tal Service with sufficient ashington, DC 20231 on this
Name (Print/type) Joseph M.	Barich	Registration No. (A	Attorney	/Agent) 42,291
Signature	M Bou			Date July 8, 2002



# D STATES PATENT AND TRADEMARK OFFICE (Attorney Docket No. 11722US02)

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JUL 1 6 2002

In the Application of:

**Technology Center 2600** 

Samir Kapoor, et al.

Serial No.

09/975,518

Filed:

October 11, 2001

For:

Method and Apparatus for

Interference Suppression in Orthogonal Frequency

Division Multiplexed (OFDM)

Wireless Communication

**System** 

Examiner:

Group Art Unit:

2661

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Asst. Commissioner for Patents, Washington, D.C.

20231 on this 8th day of July, 2002.

Joseph M. Barich

#### INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Pursuant to 37 C.F.R. § 1.97-1.98 and in compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, it is respectfully requested that the following references be considered in the examination of the above-identified patent application:

## **U.S. Patent Documents**

U.S. Patent No.	<u>Date</u>	Inventor(s)
3,978,482	8/31/1976	Williams, et al.
4,931,803	6/5/1990	Shimko
5,345,599	9/6/1994	Paulraj, et al.
5,414,433	5/9/1995	Chang
5,566,209	10/15/1996	Forssén, et al.

6,009,130	12/28/1999	Lurey, et al.
6,104,930	8/15/2000	Ward, et al.
6,141,335	10/31/2000	Kuwahara, et al.
6,144,340	11/7/2000	Kiiski, et al.
6,212,175	4/3/2001	Harsch
4,956,835	09-11-90	Grover

### Other Art

- 1. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come," *IEEE Communications Magazine*, pp. 5-14 (May 1990)
- 2. Cimini, "Analysis and Simulation of a Digital Mobile Channel Using Orthogonal Frequency Division Multiplexing," *IEEE Transactions on Communication*, pp. 665-675 (July 1985)
- 3. Kennedy, et al., "Direction Finding and "Smart Antennas" Using Software Radio Architectures," *IEEE Communications Magazine*, pp. 62-68 (May 1995)
- 4. Paulraj, "Antenna Array Signal Processing with Applications to Mobile Communications," Second Workshop on Smart Antennas in Wireless Mobile Communications, Stanford University, Stanford, California 94305, (July 1995) pgs. 1-120
- 5. Russell, et al., "Terrestrial Digital Video Broadcasting for Mobile Reception Using OFDM," Wireless Personal Communications, 2:45-66 (1995)
- 6. Swales, et al., "The Performance Enhancement of Multibeam Adaptive Base-Station Antennas for Cellular Land Mobile Radio Systems," *IEEE Transactions on Vehicular Technology*, 39(1):56-77 (February 1990
- 7. "Guide to Choosing a Wireless Base Station Antenna System," pp. 7-11 (date unknown)

The above-identified references are listed on the attached PTO Form 1449 and copies are also enclosed herewith. This submission is in no way intended as an admission that the above-cited references constitute prior art. Applicant expressly retains the right to take any actions necessary to remove the above-cited references from the available prior art. Consideration of the above-identified references in the examination of the present patent application is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required or credit any overpayment to Account No. 13-0017.

## Attorney Docket No. 11722US02

Respectfully submitted,

loseph/M. Barich

Registration No. 42,291 Attorney for Applicant

<u>July 8, 2002</u> Date

MCANDREWS, HELD & MALLOY, LTD. 500 West Madison Street, 34th Floor Chicago, Illinois 60661

Telephone:

(312) 775-8000

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(312) 775-8100

The Commissioner is authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held and Malloy, Ltd., account number 13-0017.

Respectfully submitted,

Date: January 29, 2002

Lawrence M. Jarvis

Reg. No. 27,341

McAndrews, Held & Malloy, Ltd. 500 West Madison Street, 34<sup>th</sup> Floor Chicago, Illinois 60661 (312) 775-8000 (312) 775-8100

FORM PTO-1449	TO THE WALLES	SERIAL NO.	CASE NO.
		09/975,518	RECEPTIVED
LIST OF PATENTS A	ND PUBLICATIONS FOR	FILING DATE	GROUP ART UNIT
	RMATION DISCLOSURE TEMENT	October 11, 2001	JUL 1 629002
(use several sheets if neces	ssary)	APPLICANT(S): Samir Kapoor,	et al Technology Center 2600

U.S. PATENT DOCUMEN	TS
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REPERENCE DESIGNATION		U.U. I ATEN	II DOCUMENTO			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	A1	3,978,482	8/31/1976	Williams, et al.	343/11 R	3/24/1975
	A2	4,931,803	6/5/1990	Shimko	342/371	3/31/1988
	A3	5,345,599	9/6/1994	Paulraj, et al.	455/49.1	2/21/1992
	A4	5,414,433	5/9/1995	Chang	342/375	2/16/1994
	A5	5,566,209	10/15/1996	Forssén, et al.	375/262	2/10/1994
	A6	6,009,130	12/28/1999	Lurey, et al.	375/347	12/28/1995
	A7	6,104,930	8/15/2000	Ward, et al.	455/450	5/2/1997
	A8	6,141,335	10/31/2000	Kuwahara, et al.	370/342	12/4/1997
	A9	6,144,340	11/7/2000	Kiiski, et al.	342/371	11/12/1999
	A10	6,212,175	4/3/2001	Harsch	370/338	4/22/1997

### **FOREIGN PATENT DOCUMENTS**

EXAMINER	DOCUMENT			CLASS/		LATION
INITIAL	NUMBER	DATE	COUNTRY	SUBCLASS	YES	NO

EXAMINER INITIAL		OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)
	C1 /	Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come," <i>IEEE Communications Magazine</i> , pp. 5-14 (May 1990)
	C2 ,	Cimini, "Analysis and Simulation of a Digital Mobile Channel Using Orthogonal Frequency Division Multiplexing," <i>IEEE Transactions on Communication</i> , pp. 665-675 (July 1985)
	C3	Kennedy, et al., "Direction Finding and "Smart Antennas" Using Software Radio Architectures," <i>IEEE Communications Magazine</i> , pp. 62-68 (May 1995)
	C4 (	Paulraj, "Antenna Array Signal Processing with Applications to Mobile Communications," Second Workshop on Smart Antennas in Wireless Mobile Communications, Stanford University, Stanford, California 94305, (July 1995) pgs. 1-120
	C5 /	Russell, et al., "Terrestrial Digital Video Broadcasting for Mobile Reception Using OFDM," Wireless Personal Communications, 2:45-66 (1995)
	C6 /	Swales, et al., "The Performance Enhancement of Multibeam Adaptive Base-Station Antennas for Cellular Land Mobile Radio Systems," <i>IEEE Transactions on Vehicular Technology</i> , 39(1):56-77 (February 1990
	C7 /	"Guide to Choosing a Wireless Base Station Antenna System," pp. 7-11 (date unknown)

EXAMINER	DATE CONSIDERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.